SLR NP data

Jul 2013 – Jun 2014

(LAG-1,2, AJI, STRL,

LARS)

calibration

1-year batch POD

software "c5++"

(details: \rightarrow [2])



Systematic Range Error 2013-2014

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[1] Residual Analysis: Procedure Overview

Residual data set

(WRMS:

LAG = 7 to 8 mm

LEOs = 13 to 22 mm)

Sorting program

(wrt various

components)

(details: \rightarrow [3])

[2] POD Analysis Settings

Different from the 6-hourly



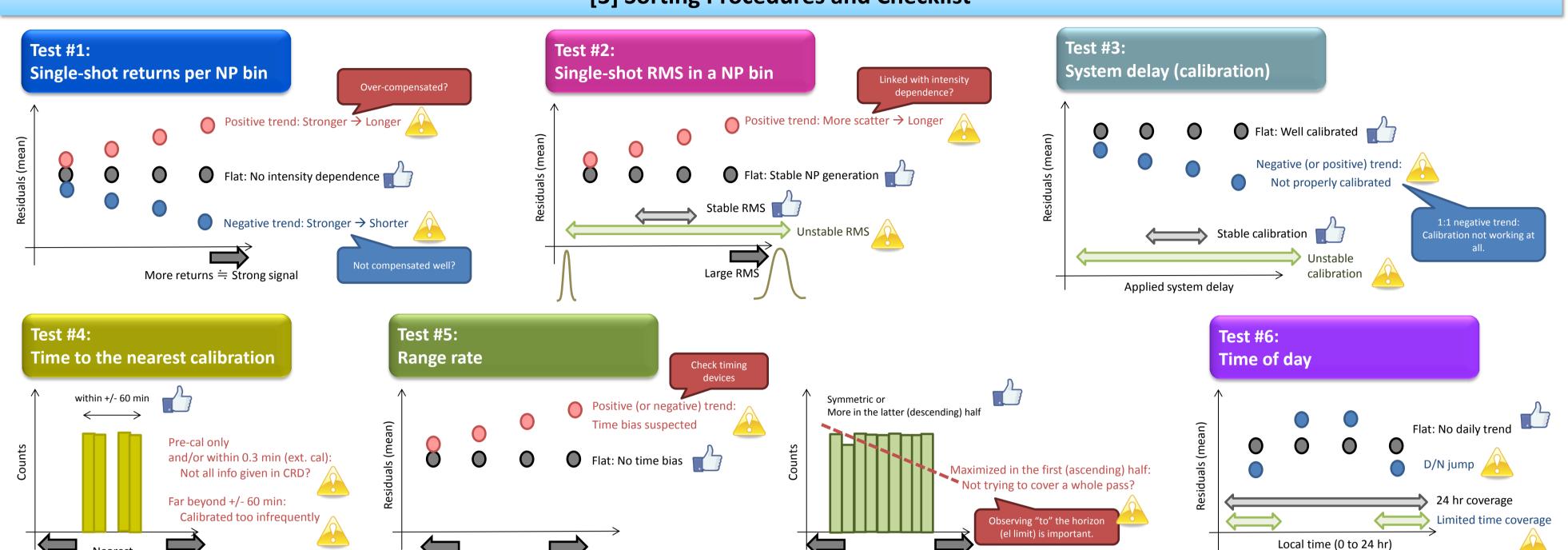
- 5 satellites (LAGEOS 1+2, AJISAT, STRLETTE & LARES). One-year batch.
- Orbit: 5-day arc for LAGEOS-1 and -2. 3-day arc for LEOs.
- Station-dependent CoM correction for LAG1+2 & AJI.
- Acceleration parameters: Gravity field 4x4 as 1-year common params, and 5 empirical params twice per arc.
- Station coordinates: all solved for with loose constraints. Velocity fixed to SLRF2008.
- Range bias: solved for per station per satellite types ("LAG1+2", "AJI", "STRL", "LARS").

[3] Sorting Procedures and Checklist

Systematic error

detectable?

 \rightarrow [4]



[4] Station-by-station diagnosis (more than 1000 charts!)

Range rate descending

Find your station's charts below!

Please do not take them way until the end of Friday's clinic session.

- We recommend the representatives of each station to review the observation procedure or hardware especially if a comment tag is attached.
- Note that the post-fit residuals are the mixture of the measurement error at a station and the model error in our orbit computation. **There is a risk of false alarm.**

World Top 12 in data yield (total passes > 3500)

(after SLR Global Performance Report Card; see Torrence's poster in this workshop)

Yarragadee (7090), Changchun (7237), Zimmerwald (7810), Wettzell (8834), Graz (7839), Mt

Stromlo (7825), Herstmonceux (7840), Greenbelt (7105), Monument Peak (7110), Matera

(7941), Hartebeesthoek (7501) and Shanghai (7821)

#13 to #25 (total passes > 1600)

San Juan (7406), Potsdam (7841), Arequipa (7403), Grasse (7845), Haleakala (7119), Arkhyz (1886), Simosato (7838), Beijing (7249), Badary (1890), Kunming (7820), Katzively (1893), Daedoek (7359) and McDonald (7080)





(Visit http://geo.science.hit-u.ac.jp/ for the charts of these 25 stations.)